

Integrable Quantum Field Theories - 2013 - 333 pages - L. Bonora, Giuseppe Mussardo, A. Schwimmer, L. Girardello, M. Martellini - Springer Science & Business Media, 2013 - 9781489915160

This book on quantum field theory is designed to be different. ...more. It is written by experimental physicists and aims to provide the interested amateur with a bridge from undergraduate physics to quantum field theory. This book introduces quantum field theory, together with its most important applications to cosmology and astroparticle physics, in a coherent framework. The path integral approach is employed right from the start, and the use of Green functions and generating functionals is illustrated first in quantum mechanics and then in scalar field theory. In theoretical physics, quantum field theory (QFT) is a theoretical framework that combines classical field theory, special relativity and quantum mechanics, but not general relativity's description of gravity. QFT is used in particle physics to construct physical models of subatomic particles and in condensed matter physics to construct models of quasiparticles. Quantum Field Theory II: Quantum Electrodynamics: A Bridge between Mathematicians and Physicists. 1,125 Pages 2009 6.91 MB 10,033 Downloads New! This is the second volume of a modern introduction to quantum field theory which addresses both Quantum Mechanics and Quantum Field Theory. 240 Pages 2011 928 KB 8,998 Downloads. of Mathematics, SUNY at Buffalo. This book discusses the mathematical foundations of quantum theories. It offers an introductory Quantum Field Theory II: Introductions to Quantum Gravity, Supersymmetry and String Theory. 2016 4.63 MB 8,639 Downloads New! theory in a coherent way. It is aimed at graduate students and researchers in quantum field the quantum field theory for the gifted. Mark Srednicki, Quantum Field Theory. I really like the organisation and design of the book, which consists of around a hundred of short and essentially self-contained chapters that introduce a single topic, discuss it in the necessary level of detail, and move on to the next topic. The discourse is linear (which is not always easy to archive), in the sense that it flows naturally from topic to topic, from easy to difficult. Itzykson C., Zuber J.B., Quantum field theory. One of my personal favourites. The book is very precise (on the level of rigour of physics), and it contains dozens of detailed and complicated derivations that most books tend to omit. Quantum Field Theory. Mark Srednicki University of California, Santa Barbara. mark@physics.ucsb.edu. 8. Preface for Students. Quantum field theory is the basic mathematical language that is used to describe and analyze the physics of elementary particles. The goal of this book is to provide a concise, step-by-step introduction to this subject, one that covers all the key concepts that are needed to understand the Standard Model of elementary particles, and some of its proposed extensions. In order to be prepared to undertake the study of quantum field theory, you should recognize and understand the following equations:
$$d\vec{f} \cdot d\vec{a} = \left(\vec{f} \cdot \vec{t} \right)^2$$